25.

```
QUENCE LISTING
 <110> RAMSINGH, ARLENE T.&IB
       HALIM, SADIA S.
 <120> COXSACKIEVIRUS B4 EXPRESSION VECTORS AND USES THEREOF
 <130> 0189-2001
 <140> 09/879,572
 <141> 2001-06-12
<170> PatentIn Ver. 2.1
<213> Unknown Organism
<223> Description of Unknown Organism: Peptide of the
      ryanodine receptor (RyR)
Arg Ala Glu Asn Glu Lys Asp Ala Thr Thr Glu Lys Asn Lys Lys Arg
                  5
<213> Unknown Organism
<223> Description of Unknown Organism: Chimeric
      ova/virus peptide
Glu Met Ile Ser Gln Ala Val His Ala Ala His Ala Glu Ala
<213> Unknown Organism
```

<220>

<160> 32

<210> 1 <211> 16 <212> PRT

<220>

<400> 1

<210> 2 <211> 14 <212> PRT

<220>

<400> 2

<210> 3 <211> 17 <212> PRT

Ile Ser Gln Ala Val His Ala Ala His Ala Glu Ile Asn Glu Ala Gly 5 15

<223> Description of Unknown Organism: OVA 323-339

Arg

```
<210> 4
 <211> 6
 <212> PRT
 <213> Coxsackievirus
 <400> 4
 Ile Ser Gln Ala Val His
          5
 <210> 5
 <211> 10
 <212> PRT
 <213> Coxsackievirus
<400> 5
Ile Ser Gln Ala Val His Ala Ala His Ala
          5
<210> 6
<211> 14
<212> PRT
<213> Coxsackievirus
<400> 6
Ile Ser Gln Ala Val His Ala Ala His Ala Glu Ile Asn Glu
                                   10
<210> 7
<211> 16
<212> PRT
<213> Coxsackievirus
Ile Ser Gln Ala Val His Ala Ala His Ala Glu Ile Asn Glu Ala Gly
                5
<210> 8
<211> 6
<212> PRT
<213> Coxsackievirus
<400> 8
Val His Ala Ala His Ala
 1 5
<210> 9
<211> 9
<212> PRT
<213> Human immunodeficiency virus
```

```
Ile Ala Gly Thr Thr Ser Thr Leu Gln
                  5
<210> 10
<211> 9
<212> PRT
<213> Human immunodeficiency virus
Ser Ser Ile Leu Asp Ile Arg Gln Gly
<210> 11
<211> 10
<212> PRT
<213> Human immunodeficiency virus
<400> 11
Asn Glu Glu Ala Ala Glu Trp Asp Arg Leu
<210> 12
<211> 9
<212> PRT
<213> Human immunodeficiency virus
<400> 12
Ile Ala Gly Thr Thr Ser Thr Leu Gln
                 5
<210> 13
<211> 9
<212> PRT
<213> Human immunodeficiency virus
<400> 13
Ser Ser Ile Leu Asp Ile Arg Gln Gly
<210> 14
<211> 10
<212> PRT
<213> Human immunodeficiency virus
<400> 14
Asn Glu Glu Ala Ala Glu Trp Asp Arg Leu
<210> 15
<211> 42
```

<400> 9

```
<212> DNA
<213> Coxsackievirus
<220>
<221> CDS
<222> (1)..(42)
<400> 15
                                                                    42
cag gag atg tcc acc gcc act aac tca gat gtt cca gtg cag
Gln Glu Met Ser Thr Ala Thr Asn Ser Asp Val Pro Val Gln
<210> 16
<211> 14
<212> PRT
<213> Coxsackievirus
Gln Glu Met Ser Thr Ala Thr Asn Ser Asp Val Pro Val Gln
                  5
                                      10
<210> 17
<211> 42
<212> DNA
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      DNA vector
<220>
<221> CDS
<222> (1)..(42)
<400> 17
cag gcc ttg tcc acc gcc act aac tca gag gcg cca gtg cag
                                                                   42
Gln Ala Leu Ser Thr Ala Thr Asn Ser Glu Ala Pro Val Gln
                  5
<210> 18
<211> 14
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Synthetic
      peptide
Gln Ala Leu Ser Thr Ala Thr Asn Ser Glu Ala Pro Val Gln
<210> 19
<211> 54
```

5

**F** 

```
<212> DNA
  <213> Coxsackievirus
 <220>
 <221> CDS
 <222> (1)..(54)
 <400> 19
 cag gag atg ata tct caa gct gtc cat gca gca cat gca gag gcg cca
 Gln Glu Met Ile Ser Gln Ala Val His Ala Ala His Ala Glu Ala Pro
 gtg cag
                                                                     54
 Val Gln
 <210> 20
 <211> 18
 <212> PRT
 <213> Coxsackievirus
 <400> 20
 Gln Glu Met Ile Ser Gln Ala Val His Ala Ala His Ala Glu Ala Pro
                                       10
Val Gln
<210> 21
<211> 19
<212> PRT
<213> Coxsackievirus
<400> 21
Glu Met Ile Ser Gln Ala Val His Ala Ala His Ala Glu Ala Pro Val
                   5
Gln Thr His
<210> 22
<211> 33
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic DNA
      vector
<220>
<221> CDS
<222> (1)..(33)
<400> 22
atg acg cgt gct cta ttc caa gga aca cag gtg
                                                                   33
Met Thr Arg Ala Leu Phe Gln Gly Thr Gln Val
 ì
                                     10
```

8

```
<210> 23
 <211> 11
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic
       peptide
 <400> 23
 Met Thr Arg Ala Leu Phe Gln Gly Thr Gln Val
 <210> 24
 <211> 33
 <212> DNA
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: Synthetic DNA
       vector
 <220>
 <221> CDS
<222> (1) .. (33)
<400> 24
atg acg cgt gct cta ttc caa gga gca cag gtg
                                                                     33
Met Thr Arg Ala Leu Phe Gln Gly Ala Gln Val
<210> 25
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic
      peptide
<400> 25
Met Thr Arg Ala Leu Phe Gln Gly Ala Gln Val
<210> 26
<211> 54
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Chimeric
      coxsackievirus containing HIV
```

```
<400> 26
  caggagatga atgaggaagc tgcagaatgg gatagactag aggcgccagt gcag
                                                                     54
 <210> 27
 <211> 51
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Chimeric
       coxsackievirus containing HIV
 <400> 27
 caggagatga tagcaggaac tactagtacc cttcaggagg cgccagtgca g
 <210> 28
 <211> 51
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Chimeric
       coxsackievirus containing HIV
 <400> 28
caggagatga gcagcattct ggacataaga caaggagagg cgccagtgca g
                                                                    51
<210> 29
<211> 239
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Chimeric
      coxsackievirus containing HIV
<220>
<221> CDS
<222> (10)..(237)
<400> 29
tacgataaa atg acg cgt gga cat caa gca gcc atg caa atg tta aaa gag 51
          Met Thr Arg Gly His Gln Ala Ala Met Gln Met Leu Lys Glu
            1
acc atc aat gag gaa gct gca gaa tgg gat aga gtg cat cca gtg cat
Thr Ile Asn Glu Glu Ala Ala Glu Trp Asp Arg Val His Pro Val His
 15
gca ggg cct att gca cca ggc cag atg aga gaa cca agg gga agt gac
                                                                   147
Ala Gly Pro Ile Ala Pro Gly Gln Met Arg Glu Pro Arg Gly Ser Asp
```

**F**. .

ata gca gga act act agt acc ctt cag gaa caa ata gga tgg atg aca 195 Ile Ala Gly Thr Thr Ser Thr Leu Gln Glu Gln Ile Gly Trp Met Thr aat aat cca acg cgt gct cta ttc caa gga gca cag gtg tca ac 239 Asn Asn Pro Thr Arg Ala Leu Phe Gln Gly Ala Gln Val Ser Thr 70 <210> 30 <211> 77 <212> PRT <213> Artificial Sequence <223> Description of Artificial Sequence: Chimeric coxsackievirus containing HIV <400> 30 Met Thr Arg Gly His Gln Ala Ala Met Gln Met Leu Lys Glu Thr Ile Asn Glu Glu Ala Ala Glu Trp Asp Arg Val His Pro Val His Ala Gly Pro Ile Ala Pro Gly Gln Met Arg Glu Pro Arg Gly Ser Asp Ile Ala Gly Thr Thr Ser Thr Leu Gln Glu Gln Ile Gly Trp Met Thr Asn Asn 55 Pro Thr Arg Ala Leu Phe Gln Gly Ala Gln Val Ser Thr <210> 31 <211> 158 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Chimeric coxsackievirus containing HIV <220> <221> CDS <222> (10)..(156) <400> 31 tacgataaa atg acg cgt gga cat caa gca gcc atg caa atg tta aaa gag 51 Met Thr Arg Gly His Gln Ala Ala Met Gln Met Leu Lys Glu acc atc aat gag gaa gct gca gaa tgg gat aga gtg cat cca gtg cat 99 Thr Ile Asn Glu Glu Ala Ala Glu Trp Asp Arg Val His Pro Val His 20 25

gca ggg cct att gca cca ggc cag acg cgt gct cta ttc caa gga tca Ala Gly Pro Ile Ala Pro Gly Gln Thr Arg Ala Leu Phe Gln Gly Ser 35 40 158

cag gtg tca ac Gln Val Ser Thr

<210> 32
<211> 50
<212> PRT
<213> Artificial Sequence

<220>

<400> 32

Met Thr Arg Gly His Gln Ala Ala Met Gln Met Leu Lys Glu Thr Ile
1 5 10 15

Asn Glu Glu Ala Ala Glu Trp Asp Arg Val His Pro Val His Ala Gly 20 25 30

Pro Ile Ala Pro Gly Gln Thr Arg Ala Leu Phe Gln Gly Ser Gln Val 35 40 45

Ser Thr 50